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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,544	11/28/2003	Oleksiy Zabroda	INTEL-048	8339
34610	7590	11/15/2004	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			TON, MY TRANG	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/722,544

Applicant(s)

ZABRODA ET AL.

Examiner

My-Trang N. Ton

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 (after renumbered) is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 and 20-24 is/are allowed.
- 6) ☒ Claim(s) 10, 11, 15-18, 25-27 and 29 is/are rejected.
- 7) ☒ Claim(s) 12-14, 19 and 28 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

According to Rule 1.126, this case has been renumbered: original claims 1-13, 15-30 have been renumbered as 1-29. The rejection for the renumbered claims 1-29 has been made as follows:

Drawings

Figures 1, 2a-2b should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claims 16 and 29 are objected to because of the following informalities:

In claim 16, line 4, after "first signal", -- ; -- should be added.

In claim 29, line 1, after "first", -- , -- should be added.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

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Claims 10 and 17-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 10, the limitation "the apparatus comprises at least one of a digital to analog converter... and pulse generator a microprocessor ... and a single ended digital signal driver" is not clearly defined. It is suggested that "and" (first occurrence) should be canceled in order to avoid any confusion. Moreover, it is not fully clear how is the apparatus recited in claim 7 interconnected and interrelated with the at least one of a digital to analog converter, wave-shaper ... and a single ended digital signal driver as recited in claim 10.

Claims 17-18 are similarly rejected as claim 10.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 11, 15-18, 25-27 and 29 are rejected under 35 U.S.C. 102(e) as being anticipated by Schofield et al (U. S Patent No. 6,583,740).

Schofield et al disclose in fig. 5 a calibrated current source including:

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a first transistor (14b) coupled to an output (32b) of a cell (14b & 18b) and to a first input (15b) of the cell (14b & 18b);

a second transistor (132) coupled in series with the first transistor (14b);

a third transistor (136) coupled between a bias input (104b) of the cell and gate of the second transistor (132), a gate of the third transistor (136) is coupled to a second input (34b) of the cell as recited in claim 11.

Regarding claim 15: the first (14b), second (132) and third (136) transistors are at least one of N-type MOSFETs and P-type MOSFETs.

Claim 16 is similarly rejected as claim 11:

a first transistor (14b) configured as a switching transistor, the first transistor (14b) coupled to an output (32b) and to a first input configured to receive a first signal (15b);

a second transistor (132) coupled in series with the first transistor (14b); the second transistor (132) configured as a current control transistor; and

a third transistor (136) configured as a switching transistor between a bias input (104b) and gate of the second transistor (132), the third transistor (136) coupled to a second input configured to receive a second signal (34b).

The limitation "comprises at least one of a digital to analog converter ..." recited in claims 17-18 is seen to read on col. 1, lines 9-25.

The method recited in claim 25 is inherent to the operation of the calibrated current source of Schofield et al.

The plurality of current cells limitation recited in claim 26 is seen in Fig. 1; 14b, 132 and 136 (Fig. 5) read on the first, the second and the third transistors.

Elements 15, 34 (Fig. 1) read on "a plurality of digital signals at respective first and second inputs of the plurality of cells" as recited in claim 27.

The first (14b), second (132) and third (136) transistors are at least one of N-type and P-type MOSFETs as recited in claim 29.

Allowable Subject Matter

Claims 1-9 and 20-24 are allowable over the prior art of record. None of the prior art disclosed or suggested to show the particular structure and/or the particular operation recited in these claims namely: "a third transistor having a gate and a substrate to a second input of the cell" in combination with "a first transistor" and "a second transistor" as recited in claim 1; "a third transistor having a gate and a substrate ... that is a compliment of the first signal" in combination with "a first transistor" and "a second transistor" as recited in claim 7; receiving a second signal that is a compliment of the first signal ... a gate and a substrate of the second transistor, respectively" in combination with "receiving a first signal ..." and "receiving a bias signal ..." as recited in claim 21.

Claims 12-14, 19 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

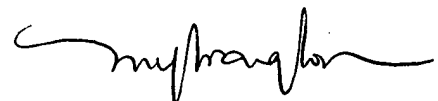
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to My-Trang N. Ton whose telephone number is 571-272-1754. The examiner can normally be reached on 7:00 a.m - 5:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

November 9, 2004



MY-TRANG NUTON
PRIMARY EXAMINER